

MATERIAL SAFETY DATA SHEET

NPCA HMIS HAZARD RATING	
Health	1
Flammability	1
Reactivity	1
Maximum Personal Protection	E

Red Copp 97 N, PURPLE COPP 97N

SECTION I

MANUFACTURER

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ATTN: Dan Brimhall

CHEMICAL NAME	CAS NUMBER	APPROX. WT. %
CUPROUS OXIDE (Cu ₂ O)	1317-39-1	97%
CUPRIC OXIDE (CuO)	1317-38-0	1%
METALLIC COPPER (Cu)	7440-50-8	1%

SECTION II HAZARDOUS INGREDIENTS

TLV & PEL

COPPER 86% Min 1 mg/m³

There is no ACGIH TLV or OSHA PEL for cuprous oxide or cupric oxide. Exposure is governed by the 8 hour TWA established for finely divided copper in dusts or mists. Cuprous oxide, cupric oxide and copper are not carcinogenic materials as listed by OSHA (29 CFR 1910) or ACGIH (Appendix A, Threshold Limit Values for Chemical Substances 1995-1996).

SECTION III PHYSICAL DATA

Boiling Point: NA
Specific Gravity: H₂O=1 6.0
Vapor Pressure: NA
Percent Volatile by volume: 0%
Vapor Density: NA
Evaporation Rate: NA
Solubility in Water: Negligible
Melting Point: 2255° F
Appearance and Odor: Red Fine Powder. No Odor.

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point: NA
Flammable Limits LEL: NA UEL: NA

Extinguishing Media: CO₂, ABC extinguisher, or water.
Special Fire Fighting Procedures: Separate from mass. Eliminate oxygen.
Unusual Fire Fighting Procedures: Spontaneous combustion may occur oxidizing product to CuO if exposed to moist air at temperatures above 100° C.

SECTION V HEALTH HAZARD DATA

Threshold Limit Value: See Section II

Signs, Symptoms, and Effects of Overexposure: Nausea, chills, diarrhea. May cause respiratory irritation; skin irritation (oxide pox); fever, eye irritation with redness, pain and conjunctivitis; preexisting lung diseases may be aggravated by exposure. Could result in respiratory disease if over exposed on a chronic basis.

Primary Routes of Entry: Inhalation and/or ingestion.

Emergency and First Aid Procedure: Remove to fresh air. Lay patient down. Cover with blanket. If irritated, flush eyes and skin with large volumes of fresh water for 15 minutes. Refer to physician.

SECTION VI REACTIVITY DATA

Stable X Unstable

Conditions and Materials to Avoid: Temperatures about 100° C while in presence of moist air. Mass build up under reactive conditions. Under certain conditions cuprous oxide may react violently with strong reactants such as acids, bases, and metals, such as but not limited to, Al and Mg.

Hazardous Decomposition Products: Copper fumes will be released if cuprous oxide is heated above its melting point (2255° F).

Hazardous Polymerization: Will not occur.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled. Clean up with vacuum or conventional tools. Avoid dusting.
Waste Disposal: Approved land fill if allowed by local, state and federal authorities.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection: Cartridge type particulate filter respirator or dust mask approved by NIOSH. Refer to Respiratory Protective Devices approved by NIOSH under 42 CFR 84.

Ventilation: To keep below listed TLV in Section II, use general dilution type ventilation.

Protective Gloves: Wear if skin contact is probable and skin is sensitive.

Eye Protection: Safety glasses or goggles.

Other Protective Equipment: Long sleeve shirts if contact is probable and skin is sensitive.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing: Keep lids tightly sealed. Store in cool, dry place.
Other Precautions: Do not take internally. Avoid prolonged contact with skin. Wash with soap and water after contact.

SECTION X SARA TITLE III

This product contains copper compounds and is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

U.S. EPA Reportable Quantity: 5,000 lbs (2,270 Kg)